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ATTORNEY DOCKET NO. CONFIRMATION NO. FIRST NAMED INVENTOR FILING DATE APPLICATION NO. 032301.354 2324 Hans Christian Alt 10/714,678 11/14/2003 EXAMINER 10/12/2004 7590 25461 SMITH, GAMBRELL & RUSSELL, LLP HERTZOG, ARDITH E SUITE 3100, PROMENADE II ART UNIT PAPER NUMBER 1230 PEACHTREE STREET, N.E. 1754 ATLANTA, GA 30309-3592

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------|
| Office Action Summary | 10/714,678 | ALT ET AL. |
| | Examiner | Art Unit |
| | Ardith E. Hertzog | 1754 |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | |
| Status | | |
| 1) Responsive to communication(s) filed on <u>06 August 2004</u> . | | |
| 2a)☑ This action is FINAL . 2b)☐ This action is non-final. | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | |
| Disposition of Claims | | |
| 4)⊠ Claim(s) <u>1-6</u> is/are pending in the application. | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | |
| 5) Claim(s) is/are allowed. | | |
| 6)⊠ Claim(s) <u>1-6</u> is/are rejected. | | |
| 7) Claim(s) is/are objected to. | | |
| 8) Claim(s) <u>1-6</u> are subject to restriction and/or election requirement. | | |
| Application Papers | | |
| 9) The specification is objected to by the Examiner | • | newer." |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | |
| Priority under 35 U.S.C. § 119 | | |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of: | | |
| 1.⊠ Certified copies of the priority documents have been received. | | |
| 2. Certified copies of the priority documents have been received in Application No | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | |
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| | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) | 4) [] I=t=================================== | (DTO 442) |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4) | te |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | 5) | atent Application (PTO-152) |

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DETAILED ACTION

Response to Amendment - Election/Restriction

- This action is in response to applicant's amendment filed August 6, 2004. Claims
 per said amendment, are now pending.
- 2. Applicant's election of the invention of Group I, as set forth in the prior Office action with mailing date May 5, 2004 (hereinafter "the 5/5/04 action"), paragraphs 1.-5., corresponding to present process claims 1-6, in said amendment is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (see MPEP § 818.03(a)). Moreover, as stated by applicant in said amendment, "In order to expedite favorable prosecution..., Claim 7, directed to the non-elected invention, has been deleted without prejudice" (see remarks accompanying said amendment at p. 5, second paragraph).
- 3. Acknowledgement is made of the **new title** submitted by applicant, in response to paragraph 8. of the 5/5/04 action.
- 4. The objection to the disclosure as set forth in the 5/5/04 action, paragraph 9., has been **overcome** by applicant's amendment.
- 5. The 35 U.S.C. § 112, second paragraph, rejection of claims 3 and 6 as set forth in the 5/5/04 action, paragraph 11., has been **overcome** by applicant's amendment.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 7. Claims 1, 2, 4 and 5 are again rejected under 35 U.S.C. § 103(a) as being unpatentable over Uhlemann et al. (US 4,946,654, hereinafter "Uhlemann et al. '654") in view of Abraham et al. (WO 01/25146), **for the reasons of record**. See the explanation of this rejection in the 5/5/04 action, paragraphs 13.-14.
- 8. Claims 3 and 6 are again rejected under 35 U.S.C. § 103(a) as being unpatentable over Uhlemann et al. '654 in view of Abraham et al., as applied to claims 1 and 4 above, and **further** in view of Abraham et al., **for the reasons of record**. See the explanation of this rejection in the 5/5/04 action, paragraphs 15.-16.

Response to Arguments

9. Applicant's arguments filed August 6, 2004 have been fully considered, but they have not been found persuasive. It is initially argued that Uhlemann et al. '654 "discloses a dry bed spray granulation process", with applicant apparently arguing that such process is different from the process of fluidized bed spray granulation (see remarks accompanying applicant's amendment at p. 6, third paragraph). However, the examiner must respectfully disagree with the premise of this argument, since, as discussed in the 5/5/04 action, Uhlemann et al. '654 clearly teach "processes for preparing granulates utilizing **fluidized bed spray granulation**, as broadly recited in applicant's claim 1 (see Uhlemann et al. '654 abstract)" (see paragraph 13. of the 5/5/04 action, emphasis added). It is next argued that:

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there is no motivation for a person skilled in the art to consider that fluidized bed granulation and spray drying techniques are interchangeable and that materials used in one such process could be easily used in the other process. That is, a person skilled in the art would not necessarily conclude that the alkali metal sulfide used in the spray drying operation of Abraham could be used with equally good results in the fluidized bed granulation system of Uhlemann. (remarks accompanying applicant's amendment at p. 6, third paragraph)

With respect to the first aspect of this argument, it is respectfully noted that the basis for the rejections maintained above is not that "fluidized bed granulation and spray drying techniques are interchangeable" (emphasis added); rather, it is that one of ordinary skill in the art would have been motivated to have selected sodium sulfide for use as one of the "inorganic chemicals" already taught by Uhlemann et al. '654 as effective in the disclosed fluidized bed spray granulation processes (see again col. 4, lines 22-27, 39-43, and col. 6, lines 1-3), given those teachings of Abraham et al. relied upon in the 5/5/04 action. Indeed, it is respectfully submitted that these teachings would have provided proper motivation for the artisan to have selected sodium sulfide for use as an Uhlemann et al. '654 inorganic chemical, and that—in contrast to applicant's arguments that no *prima facie* case of obviousness has been made (see paragraph bridging pages 6-7 through paragraph bridging pages 7-8 of remarks accompanying applicant's amendment)—a *prima facie* case of obviousness has been made. Again, Abraham et al. teach that:

Alkali metal sulfides are useful as chemical reagents in, for example, dye production and polymer synthesis... [,] typically available in the form of aqueous solutions or solid hydrated flakes or pearls. Commercially available alkali metal sulfides in solid hydrated flake form generally contain between 30 and 40 percent by weight of water, based on total weight. The water that is present in the solid hydrated alkali metal sulfide may interfere with chemical reactions in which it is used, e.g., decreasing rates

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of reaction and/or process yields. Accordingly, the use of anhydrous alkali metal sulfides would be preferred for certain chemical reactions and processes. (see p. 1, lines 15-26, emphasis added)

and also teach that:

It is desirable to pursue the continued development of new methods of preparing anhydrous alkali metal sulfides. It is further desirable that such newly developed methods not result in the formation of fused or oxidized products, and not require the use of reduced pressure. (see p. 3, lines 13-17, emphasis added)

Accordingly, it is maintained that it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to have selected an alkali metal sulfide when having used an inorganic chemical in the Uhlemann et al. '654 fluidized bed spray granulation processes, because, again, Uhlemann et al. '654 clearly teach that inorganic chemicals make suitable products to be so granulated, with the above teachings of Abraham et al. establishing that, not only are alkali metal sulfides known to be "useful as chemical reagents", but also that the pursuit of new processes for preparing same in anhydrous form continues to be an area of active interest in the spray drying art. And as noted in the 5/5/04 action, the Uhlemann et al. '654 processes do "not require the use of reduced pressure", as specifically discussed in Abraham et al. (see again Abraham et al. p. 3, line 17). Note that the examiner is not arguing that the materials used by Uhlemann et al. '654 are "interchangeable" with those used by Abraham et al. (as evidently argued at the end of the third paragraph on p. 6 of the remarks accompanying applicant's amendment) but instead that the secondary reference, Abraham et al., teaches a **species** of a **specific** type of material—namely, "inorganic chemicals"—already taught by the primary reference, Uhlemann et al. '654.

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Accordingly, it is respectfully submitted that there need be "[n]o evidence of interchangeability of record", contrary to applicant's submission. Hence, it is respectfully submitted that the "three basic criteria" discussed in the concluding remarks accompanying applicant's amendment have in fact been met. Specifically: 1) the Uhlemann et al. '654 and Abraham et al. references themselves are believed to provide the suggestion or motivation to have made the proposed combination, as reiterated above; 2) there would have been a reasonable expectation of success, in view of the fact that the primary reference, Uhlemann et al. '654, already teach that "inorganic chemicals" are suitable for use in the disclosed fluidized bed spray granulation processes; and 3) these references when combined teach all claim limitations.

Conclusion

- 10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Specifically, the enclosed translation of "Uhlemann, Chem.-Ing.-Tech. 62 (1990) p. 822-834", cited in the specification at page 1, paragraph [0005], is considered merely cumulative to or less material than that cited with the 5/5/04 action.
- 11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).
- 12. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

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action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- 13. Any inquiry concerning this communication or any earlier communications from the examiner should be directed to Ardith E. Hertzog at telephone number is (571) 272-1347. The examiner can normally be reached on Monday through Friday (from about 8:00 a.m. 4:00 p.m.).
- 14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached on (571) 272-1358. The fax phone number for the organization where this application is assigned is 703-872-9306.
- 15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

 Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 30, 2004